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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,550

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Raj Bridgelall

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EXAMINER

REGO, DOMINIC E

ART UNIT

PAPER NUMBER

2618

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/750,550	<b>Applicant(s)</b> BRIDGELALL, RAJ	
	<b>Examiner</b> Dominic E. Rego	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-42 and 44-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 and 44-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,9-29,32-42, and 44-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Gelvin (WO 01/26335 A2).

**Regarding claim 1**, Gelvin teaches a system for wireless communication and sensory monitoring (Page 7, line 13 to page 9, line 12) comprising:

a plurality of nodes installed as a network, each of the plurality of nodes (Page 13, lines 12-14) comprising:

an internode transceiver for wireless communication between nodes (Page 40, lines 3-30);

a wireless network transceiver for wireless communication with one or more wireless devices (Page 15, lines 8-25; Page 115, line 26 to page 116, line 6; Figure 51);

one or more sensors for monitoring an environment of the structure (Page 15, lines 10-13; page 27, lines 1-15);

a processor coupled to the internode transceiver, the wireless network transceiver and the one or more sensors, the processor operable to exchange data with the internode transceiver, the wireless network transceiver and the one or more sensors devices coupled to the processor and process the data (Page 17, line 9 to page 18, line

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7; page 20, line 6 to page 21, line 20; page 27, line 14 to page 29, line 4; Figures 15, 16, and 19); and

a wide area network bridge coupled to the plurality of nodes, the network bridge configured to receive data from the plurality of nodes and pass information to a computer network for processing (Page 15, lines 8-10; page 15, line 16 to page 16, line 22; page 47, line 21 to page 48, line 10).

**Regarding claims 2, 25, and 44,** Gelvin teaches the system wherein the internode transceiver of each node comprises a transceiver configured to communicate using a beam steered transmission (page 29, lines 4-26; page 74, lines 6-18).

**Regarding claims 3 and 45,** Gelvin teaches the system wherein the internode transceiver of each node comprises a transceiver configured to communicate using a beam switched transmission (page 29, lines 4-26; page 74, lines 6-18).

**Regarding claims 4, 26, and 46,** Gelvin teaches the system wherein the internode transceiver is coupled to a phased array antenna configured to form the beam steered transmission (page 29, lines 4-26; page 74, lines 6-18).

**Regarding claims 5, 27, 28, and 47,** Gelvin teaches the system wherein the internode transceiver is coupled to multiple microwave horn antennas configured to form the beam switched transmission (page 29, lines 4-26; page 74, lines 6-18).

**Regarding claims 6, 29, and 48,** Gelvin teaches the system wherein the internode transceiver is configured to transmit in the industrial, scientific and medical band (Page 29, lines 27-29; page 77, lines 15-20).

**Regarding claims 9 and 32,** Gelvin teaches the system wherein the one or

more sensor includes an audio transducer (Page 6, line 27- page 7, line 12).

**Regarding claims 10 and 33**, Gelvin teaches the system wherein the audio transducer is coupled to a spotlight antenna for broadcasting audible transmission in a narrow footprint (Page 62, line 1-17).

**Regarding claims 11, 34**, Gelvin teaches the system further comprising a first grouping of one or more nodes of the plurality of nodes and a second grouping of one or more nodes of the plurality of nodes, the first grouping configured to provide for the reception and transmission of audible communication and the second grouping configured to provide for the reception and transmission of audible communication, the first grouping of one or more nodes and the second grouping of one or more nodes together forming a virtual private speaker phone (Page 62, line 1-17; page 84, lines 1-20).

**Regarding claims 12 and 35**, Gelvin teaches the system wherein different audible transmissions are broadcasted based on the location of the node (Page 43, lines 17- page 44, line 12).

**Regarding claims 13 and 36**, Gelvin teaches the system wherein the internode transceiver is configured to transfer information between each of the nodes in an ad-hoc fashion (Page 84, lines 1-20; Also, see Bridgelall, US Patent Application Publication #2005/0143133, Paragraph 0025: Bridgelall teaches the determination of ad-hoc routes and the formation of routing tables are well known in the art).

**Regarding claims 14 and 37**, Gelvin teaches the system wherein the processor of each node of the network of nodes is configured to determine the ad-hoc transfer

path based on the latency of the node and the latency of other nodes (*Page 84, lines 1-20*).

**Regarding claims 15 and 38**, Gelvin teaches the system wherein the one or more sensors include a visual sensor configured to provide a visual record of an event in response to the receipt of a signal from at least one of the one or more plurality of nodes upon detection of the event by at least one of the sensor of the one or more sensors (*Page 7, lines 13-15*).

**Regarding claims 16 and 39**, Gelvin teaches the system further comprising an RFID transceiver for interrogating RFID tags (*Page 66, line 1-8*).

**Regarding claims 17 and 40**, Gelvin teaches the system wherein the RFID transceiver is coupled to a SPOCK antenna to transmit and receive RF signals (*Page 96, line 9-page 97, line 6*).

**Regarding claim 18**, Gelvin teaches the system wherein the wide area network bridge is coupled to connect the network to the Internet (*Figure 8, Remote user 832 are connected to the internet*).

**Regarding claim 19**, Gelvin teaches the system further comprising one or more wireless devices configured to join the network of nodes to provide additional functionality (*Page 105, line 7-28*).

**Regarding claim 20**, Gelvin teaches the system wherein the wireless device is configured to route transmissions from one node of the network of nodes to another node of the network of nodes (*Page 105, line 7-28*).

**Regarding claim 21**, Gelvin teaches the system where a first node of the

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network of nodes is configured to utilize sensors on a second node of the network of nodes that is not available on the first node (Page 9, line 7-22).

**Regarding claim 22**, Gelvin teaches the system further comprising a computer having a wireless transmitter, the computer configured to integrate into the network of nodes (Page 105, lines 21-28).

**Regarding claims 23 and 41**, Gelvin teaches the system 23. The system of claim 1 further comprising a contactless power system operable to provide power to the nodes with out the use of a wired connection (*Bridgelall, US Patent Application Publication #2005/0143133, Paragraph 0037: Bridgelall teaches the power can be provided using well-known contactless power arrangements such as capacitive or inductive coupling*).

**Regarding claim 24**, Gelvin teaches a node for use in a communication and sensor network (Page 7, line 13 to page 9, line 12) comprising:

an internode transceiver for wireless communication between nodes (Page 40, lines 3-30);

a wireless network transceiver for wireless communication with one or more wireless devices (Page 115, line 26 to page 116, line 6; Figure 51);

one or more sensors for monitoring the environment of the structure (Page 15, lines 10-13; page 27, lines 1-15); and

a processor coupled to the internode transceiver, the wireless network transceiver and the one or more sensors, the processor operable to exchange data with the internode transceiver, the wireless network transceiver and the one or more sensors

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devices coupled to the processor and process the data (Page 17, line 9 to page 18, line 7; page 20, line 6 to page 21, line 20; page 27, line 14 to page 29, line 4; Figures 15,16, and 19).

**Regarding claim 42**, Gelvin teaches a system for sensory monitoring and processing (Page 7, line 13 to page 9, line 12) comprising:

a plurality of nodes installed as a network, each of the plurality of nodes (Page 13, lines 12-14) comprising:

an internode transceiver for wireless communication between nodes (Page 40, lines 3-30);

a wireless transceiver for communication between the node and a wireless device (Page 105, line 7-28);

one or more sensors for monitoring the environment of the structure (Page 15, lines 10-13; page 27, lines 1-15); and

a processor coupled to the internode transceiver, the wireless network transceiver and the one or more sensors, the processor operable to exchange data with the internode transceiver, the wireless network transceiver and the one or more sensors devices coupled to the processor and process the data (Page 17, line 9 to page 18, line 7; page 20, line 6 to page 21, line 20; page 27, line 14 to page 29, line 4; Figures 15,16, and 19).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7,30, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelvin (WO 01/26335 A2) in view of Russell et al. (US Patent Application Publication #20040139477).

**Regarding claims 7,30, and 49,** Gelvin teaches all the claimed elements in claims 1, 26, and 43, except for the system wherein the internode transceiver is configured to transmit at 60 GHz.

However, in related art, Russell teaches the system wherein the internode transceiver is configured to transmit at 60 GHz (Paragraphs 0033).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of the system wherein the internode transceiver is configured to transmit at 60 GHz, as taught by Russell, in the Gelvin device in order to broadcast network program wirelessly (Russell, Paragraph 0005).

5. Claims 8,31, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelvin (WO 01/26335 A2) in view of Wilensky (US Patent Application Publication #20050029339).

**Regarding claims 8, 31, and 50,** Gelvin teaches all the claimed elements in claims 1,24,and 43, except for the system wherein the wireless network transceiver comprises a transceiver that is 802.11 compliant.

However, in related art, Wilensky teaches the system wherein the wireless network transceiver comprises a transceiver that is 802.11 compliant (Paragraphs 0035).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the teaching of the system wherein the wireless network transceiver comprises a transceiver that is 802.11 compliant, as taught by Wilensky, in the Gelvin device in order to in order to transmit and receive data from other systems.

### ***Response to Arguments***

6. Applicant's arguments filed 03/30/2007 have been fully considered but they are not persuasive. Regarding claims 1,24, and 42, applicant argues that Gelvin fails to teach, disclose, or suggest that any single node has an "internode transceiver for wireless communication between node. The examiner disagrees. Page 40, lines 20-21, Gelvin teaches couplings 2604A-2604F represent wireless connections wherein node 1 and node 2 has a transceiver for wirelessly communicating with each other. Applicant argues that Gelvin fails to teach a wireless network transceiver for wireless communication with one or more wireless devices and one or more sensors. The examiner disagrees. Page 15, lines 8-25, Gelvin teaches figures 8 and 9 show embodiments of a WINS NG network. The network includes nodes 802, gateway nodes 804, server 806, and web assistants or node control web or browser pages (not shown), but is not so limited. The sensor nodes 802 include any combination of actuators, sensors, signal processors, energy or power supplies, data storage devices, wireless

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communication devices, wireline communication devices, and self-location capabilities.

The sensor nodes 802 are distributed in an environment 899 that is to be monitored or controlled. The network can include heterogeneous elements. Local users may interact, if authenticated, with the network via the nodes 802 themselves through a local display and user interfaces (UIs). Non-local users can interact with the network through gateways 804. Thus, connections to servers 806, database services 820, and other network resources are available, and user 832 can access the network with standard tools. The user or client computer can access the WINS network continuously or intermittently, and may interface via processors of vastly different capabilities according to a particular application (e.g., personal computers, personal digital assistants (PDAs), or bidirectional pagers). Also, see page 27, lines 1-15 for sensors. For dependent claims 2-23,25-41, and 44-50, see claims rejection for more details.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

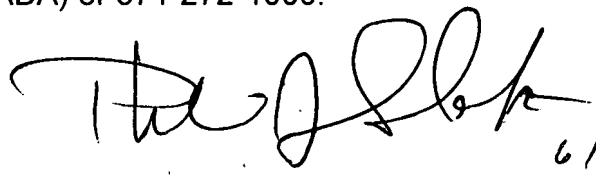
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic E. Rego whose telephone number is 571-272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dominic E. Rego



6/15/7

PHILIP J. SOBUTKA

**PHILIP J. SOBUTKA  
PATENT EXAMINER**